

1. Method for managing the authorization of a user during an attempt to access an IP transport network (5) by means of an access network (1, 2), which method includes steps in which:

- a user terminal (11, 12, 13) transmits, to an IP service or access provider (6, 7, 8), an access request containing data for user authentication with the IP service or access provider, which is transmitted by means of an access server (9) of the access network (1, 2) and the IP transport network (5), so as to be sent to a remote authentication server (15) of the IP service or access provider,
- upon receipt of the access request, the access server (9) transmits a RADIUS request in accordance with the RADIUS protocol to a proxy server (10) of the access network (1, 2),
- upon receipt of the RADIUS request, the proxy server transmits a request for access authorization to the remote authentication server (15),
- the remote authentication server (15) executes a user authentication procedure, on the basis of authentication data contained in the access request, and in response transmits, to the proxy server, a response message containing the result of the user authentication procedure.

characterized in that it also includes steps in which:

- the proxy server determines, for each RADIUS request, received from the access server (9) and corresponding to an access request transmitted by a user terminal, whether a local authentication of the

- user transmitting the access request, at the local network level (1, 2), must be performed,
- if a local authentication of the user must be performed, the proxy server transmits, to the access server (9), a request for authentication data, which is retransmitted to the user terminal, receives a response message from the user terminal by means of the access server, and executes a procedure for local authentication of the user, on the basis of the authentication data contained in the response message.

2. Method according to claim 1, characterized in that the authentication data request transmitted by the proxy server (10) to the user terminal (11, 12, 13), if a local user authentication must be performed, is a challenge message containing a random number.

3. Method according to claim 2, characterized in that the challenge message contains an indication enabling the user terminal to determine whether it concerns a local user authentication.

4. Method according to one of claims 1 to 3, characterized in that the remote authentication of the user by the remote authentication server (15) includes steps in which:

- the remote authentication server transmits, to the user, a challenge message containing a random number,
- the proxy server (10) retransmits the challenge message transmitted by the remote authentication server to the user and, in a response message,

- receives the data for user authentication with the remote authentication server,
- the proxy server (10) retransmits, to the remote authentication server, the response message transmitted by the user terminal,
 - the proxy server (10) receives, from the remote authentication server, a message containing the result of the user authentication.

5. Method according to one of claims 1 to 4, characterized in that the proxy server determines which access rights to assign to the user on the basis of the result of the local and remote authentications of the user.

6. System for managing authorization of a user during an attempt by a user terminal to access an IP service or access provider (6, 7, 8) by means of an IP transport network (5), which system includes:

- access networks (1, 2) to which the user terminals are connected,
- IP gateways (3, 4) ensuring the connection, respectively, between the access networks (1, 2) and the IP transport network (5),
- at least one access server (9) for each access network, designed to transmit, upon request by the user terminals, RADIUS access requests in accordance with the RADIUS protocol,
- at least one remote authentication server (15) for each of the IP service or access providers (6, 7, 8), designed to authenticate the users on the basis of

authentication data contained in the access requests (50, 58) received by the authentication server, and,

- a proxy server (10) connected to the IP transport network, designed to retransmit each RADIUS access request, transmitted by one of the access servers (9) upon a user's request, to a remote authentication server (15) of an IP service or access provider indicated in the access request, and to retransmit, to the access servers, the authentication responses provided by the remote authentication servers (15).

characterized in that the proxy server includes:

- means for determining, for each RADIUS access request received from an access server (9) upon a user's request, whether or not a local authentication of the user transmitting the access request must be performed at the local network level (1, 2),
- means for transmitting by way of an access server, to a user terminal that must be locally authenticated, a message requesting authentication data, and for receiving, in response from the user terminal, a response message containing the authentication data requested, and
- means for executing a local user authentication procedure, on the basis of authentication information contained in the response message.

7. System according to claim 6, characterized in that the proxy server (10) also includes means for determining an overall authentication result on the basis of the local user authentication result and the user's authentication response provided by the authentication server (15), and

for retransmitting the overall authentication result to the access server (9).

8. System according to claim 6 or 7, characterized in that each access server (9) includes a RADIUS client and the proxy server includes a client and a RADIUS server, for exchanging messages in accordance with the RADIUS protocol.

9. System according to one of claims 6 to 8, characterized in that the authentication data request message transmitted by the proxy server (10) to locally authenticate the user is a challenge message, wherein the proxy server comprises means for generating a random number that is inserted into the challenge message, and means for verifying the response to the challenge message received from the user terminal.

10. System according to one of claims 6 to 9, characterized in that the proxy server (10) includes means for determining which access rights to assign to the user on the basis of the result of the local and remote authentications of the user.

11. Proxy server (10) for authorizing a user terminal connected to an access network (1, 2) to access and IP service or access provider (6, 7, 8) by means of an IP transport network (5) connected to the access network by an IP gateway (3, 4), wherein the proxy server is connected to an IP transport network and includes means for:

- retransmitting each RADIUS access request (50, 58) in accordance with the RADIUS protocol, transmitted by an access server (9) upon the request of a user terminal, to a remote authentication server (15) of an IP service or access provider indicated in the access request, and
- retransmitting, to the access server, the authentication response provided by the remote authentication server (15).

characterized in that it also includes means for:

- determining, for each RADIUS access request received from an access server (9) upon a user's request, whether or not a local authentication of the user transmitting the access request must be performed at the local network level (1, 2),
- transmitting, by means of an access server, to a user terminal that must be locally authenticated, a message requesting authentication data, and, in response, receiving from the user terminal a response message containing the authentication data requested, and
- executing a local user authentication procedure, on the basis of the authentication information contained in the response message.

12. Computer program intended to be executed by a proxy server (10) designed to authorize a user terminal connected to an access network (1, 2) to access an IP service or access provider (6, 7, 8) by means of an IP transport network (5) connected to the access network by an IP gateway (3, 4), wherein the proxy server is

connected to an IP transport network, which program includes instructions for:

- retransmitting each RADIUS access request (50, 58) in accordance with the RADIUS protocol, transmitted by an access server (9) upon the request of a user terminal, to a remote authentication server (15) of an IP service or access provider indicated in the access request, and
- retransmitting, to the access server, the authentication response provided by the remote authentication server (15).

characterized in that it also includes instructions for:

- determining, for each RADIUS access request received from an access server (9) upon the request of a user, whether or not a local authentication of the user transmitting the access request must be performed at the local network level (1, 2),
- transmitting, by means of an access server, to a user terminal that must be locally authenticated, a message requesting authentication data, and, in response, receiving from the user terminal a response message containing the authentication data requested, and
- executing a local user authentication procedure, on the basis of authentication information contained in the response message.